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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,918	03/15/2004	Kyoung-ho Kang	Q78832	6839

23373 7590 11/07/2006
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EXAMINER

TWEEL JR, JOHN ALEXANDER

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/799,918	Applicant(s) KANG ET AL.	
	Examiner John A. Tweel, Jr.	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8-14 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8-14 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/30/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-5, 8-11, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vardi** (supplied with previous action) in view of **Sato** [U.S. 5,949,407].

For claim 1, the apparatus taught by **Vardi** includes the following claimed subject matter, as noted, 1) the claimed motion detection unit is met by the acceleration sensors (Nos. 500, 502, 504) to detect at least one motion of a body, 2) the claimed data storage unit is met by the application output and memory (No. 548) as well as the dictionary (No. 556) adapted to store command codes for a controlled device and information on the specific motion such as a PDA, 3) the claimed transmission unit is met by the communication and I/O unit (No. 546) to transmit data wirelessly or wired to the controlled device, and 4) the claimed control unit is met by the controller (No. 530) adapted to obtain information from the motion detection unit and controls the transmission unit so that if the motion corresponds to at least one specific motion, a command code is output to the device; the **Vardi** reference being operable to perform several different functions, such as calculator, PDA, remote control, and telephone as well as the specific application the apparatus is used for is chosen using velocities and

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movements corresponding to the application itself (Fig. 6E). Although the specification mentions the use of the apparatus as a remote-control device, there is no explicit mention of command codes being output in remote control signal form.

To use command codes in a remote control device is not new in the prior art. The remote control system taught by Sato includes a remote controller adapted to control multiple devices. Using memory (No. 5) storing a multitude of command codes (Fig. 3) the remote control device may control a number of external devices. This is plain evidence that command codes have been used to remotely control external devices for some time. Acceleration sensors are even used in the Sato reference (Col. 18, Ln. 7) to enact control.

Given the similarities of the two references; that is, the control of devices using motion control, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include command codes to remotely control external devices for the purpose of using a well known and common control protocol.

For claims 2 and 3, the various embodiments seen in Figures 1-4 are pen and bar shaped.

For claim 4, the Sato reference uses acceleration sensors (Col. 18, Ln. 7) to output electric signals based on accelerations of the body.

For claim 5, the apparatus also includes a velocity-processing unit (No. 538) to produce a velocity indicating output.

For claim 8, the Vardi reference uses character recognition output indication.

For claim 9, the depicted embodiments all include display devices.

For claim 10, the display of Vardi is able to display characters and numbers based on signals from the accelerometers.

For claim 11, the display device of Vardi is described as an LCD device.

For claim 14, the method taught by **Vardi** includes the following claimed steps, as noted, 1) the claimed detecting at least one motion information is achieved using the acceleration sensors (Nos. 500, 502, 504) from motions of the body, 2) the claimed comparing the detected motion information is read on the specification (Col. 17, Lns. 8-15) that the input matrices are compared with dictionary matrices to achieve identification, and 3) the claimed transmitting the command codes is achieved using the communication and I/O unit (No. 546) for transmitting the codes to the device, such as the PDA, if the codes exist for the motion information; the device of **Vardi** controlling a plurality of devices based on the motion detected by the body as well as the specific application the apparatus is used for is chosen using velocities and movements corresponding to the application itself (Fig. 6E). However, there is no mention of using command codes corresponding to motion information to remotely control a device.

The claim is interpreted and rejected for the same reasons and rationale as is mentioned in the rejection of claim 1 above.

For claim 17, the method of Vardi can also display operation state using the display (No. 550).

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Vardi** in view of **Sato** as applied to claim 1 above and further in view of **Williams**.

For claim 12, the combination of references includes the claimed subject matter as discussed in the rejection of claim 1 above. However, there is no mention of at least one input for inputting extra commands.

Extra input methods are not new in remote control or portable computers. The portable computer taught by Williams includes a keypad (Nos. 33, 6-13) that enable one to record a voice message in the system if one wishes. This is plain evidence that extra inputs have been used on portable computers for some time. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a keypad into the system of Vardi for the purpose of enabling the user to perform useful tasks such as voice recording.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Vardi** in view of **Sato** as applied to claim 1 above and further in view of **Schiller et al.**

For claim 13, the combination of references includes the claimed subject matter as discussed in the rejection of claim 1 above. However, there is no mention of a gyro sensor.


Gyro sensors have been used in portable pen apparatus for some time. The electronic pen apparatus taught by Schiller uses gyro sensors to recognize movement in three dimensions, similar to the three dimensions of the primary reference. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include gyro sensors in the system of Vardi for the purpose of using a common and well known movement sensor.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Tweel, Jr. whose telephone number is 571 272 2969. The examiner can normally be reached on M-F 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass can be reached on 571 272 2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAT
11/6/06



JOHN TWEEL
PRIMARY EXAMINER